

ETNA 2020 @ SHIFT2RAIL

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Digital rail traffic and automated
transport operations

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<https://www.tudelft.nl/en/ceg/about-faculty/departments/transport-planning/staff/personal-pages/quaglietta-e/>

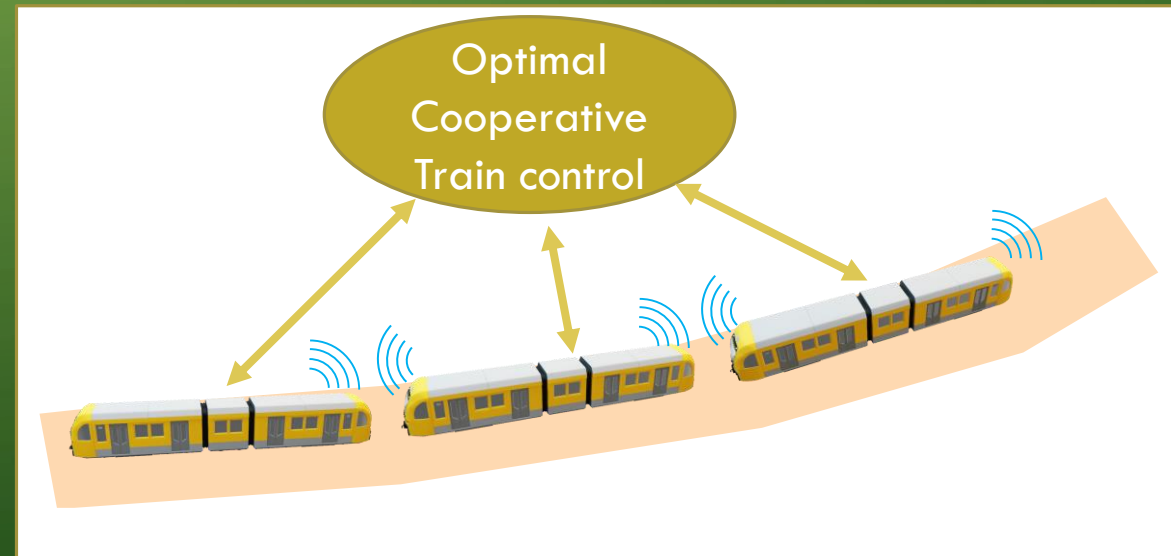
ANTRAIL

ANT-like RAIL Traffic operations to maximise network efficiency

In nature ants seem to know the secret of making super efficient, high-capacity transport networks using cooperative movements...

Research question:

Can Virtual Coupling and optimal train control unleash the same potential for railways?



ANTRAIL: Project Description

Contributing to
S2R IP2:

TD2.8 - VCTS

TD2.9 - Traffic
management
evolution

Expands work in:

S2R-OC-IP2-
01-2020 of
the AWP

Concept definition and verification

WP1

Principles for cooperative
VC train operations

WP2

Formal Verification and
functional specs

Mathematical formalisation

WP3

VC enabled rail
simulation environment

WP4

Cooperative train control
algorithms

Testing platform and evaluation

WP5

ANTRAIL operation
platform integration

WP6

Performance analysis and
assessment

ANTRAIL: Current consortium & Partner profile

Partners:

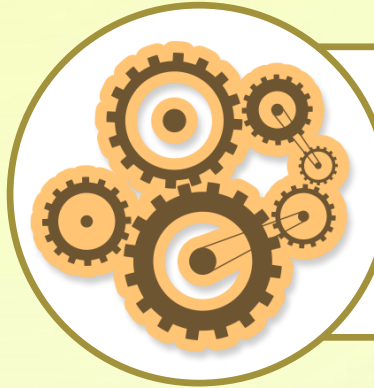
 **TU Delft** (NL)

 **IFSTAR** (FR)

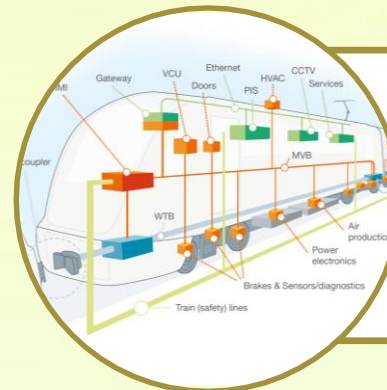
 **UNIVERSITÀ DEGLI STUDI DI NAPOLI
FEDERICO II** (IT)

 **Linnæus University** (SE)
Sweden

Who we are looking for:



SMEs with expertise in SW demonstrators for the railways to showcase concepts in WP5



SMEs with core business in train management control systems to support WP1 and WP3.

Thank you for your attention



Can you help us moving to the next generation of railways?